

STUDIES IN THE EUPATORIEAE (ASTERACEAE). CXCVII.

THREE ADDITIONS TO *BARTLETTINA*.

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The South American species of the genus *Bartlettina* have shown great diversity, differing in many ways from the more uniform typical element of the genus in Central America. The South American species lack the higher chromosome base number of 16 seen in the typical group. Also, in an increasing number of cases, the South American species show cordate leaf bases which were once thought to be lacking in the genus. New material from Venezuela and Colombia has proven to represent two additional undescribed species of this latter type. One of the new species has a habit that has led to reconsideration of the generic placement of *Eupatorium perezioides* B.L.Robins. which we have previously placed as an anomalous element in *Aristeguietia* (King & Robinson, 1975). The new combination and two new species are as follows.

*BARTLETTINA PEREZIOIDES* (B.L.Robins.) R.M.King & H.Robins., comb. nov. *Eupatorium perezioides* B.L.Robins., Proc. Amer. Acad. 54: 255. 1918. *Aristeguietia perezioides* (B.L.Robins.) King & Robinson, Phytologia 30 (3): 220. 1975.

At the time of the earlier transfer of this Colombian species, it was thought to be related to species of *Aristeguietia* in spite of the anomalous narrow style branches.

*BARTLETTINA LIESNERI* R.M.King & H.Robinson, sp. nov.

Plantae herbaceae 0.8-1.0 m altae plus minusve ramosae. Caules atro-brunnescentes teretes densissime pilosi. Folia opposita, petiolis 3-14 mm longis; laminae ovatae 2-8 cm longae et 1.5-5.5 cm latae base rotundatae vel leniter cordatae margine multo argute mucronato-dentatae apice breviter acutae supra dense pilosae subtus plerumque in nervis et nervulis perdense pilosae sparse minute stipitato-glanduliferae fere as basem trinervatae vel subtrinervatae. Inflorescentiae laxae thyrsoidae-paniculatae inferne in internodiis elongatae, ramis dense minute stipitato-glanduliferis, ramis ultimis 4-12 mm longis. Capitula late campanulata ca. 6 mm alta et 6-7 mm lata; squamae involucri ca. 35-40 leniter subimbricatae inaequilongae lanceolatae 2.5-4.5 mm longae ca. 0.8-1.0 mm latae 2-4-costatae apice anguste acutae margine perdense setulifero-fimbriatae exteriores base sparse minute stipitato-glanduliferae interiores aliquantum deciduae; receptacula convexa glabra. Flores ca. 40 in capitulo; corollae

lavandulae ca. 4 mm longae, tubis ca. 2 mm longis glabris; faucibus anguste infundibularibus ca. 1.7 mm longis superne interdum vix constrictis glabris vel subglabris, lobis triangularibus ca. 0.4 mm longis et latis extus dense glandulo-punctatis; filamenta in parte superiore ca. 0.25 mm longa, thecae ca. 1 mm longae; appendices antherarum oblongo-ovatae 0.20-0.23 mm longae et 0.2 mm latae; rami styli abaxialiter inferne sparse piliferi; appendices styli leniter apiculate mamillosae. Achaenia 1.6-1.8 mm longa supra medio plerumque in costis pauca setulifera; carpodia ca. 0.1 mm longa et 0.3 mm lata; setae pappi ca. 35 plerumque 3.3-3.8 mm longae apice tenuiores anguste acutae. Grana pollinis in diametro 23-25  $\mu$ m.

TYPE: VENEZUELA: Tachira: Cerro Las Minas, bordering Quebrada Las Minas, 18-20 km SE of Santa Ana, Lat.  $7^{\circ}36'N$ , Long.  $72^{\circ}13'W$ . Primary forest over sandstone substrate. alt. 1150-1250 m. Herbaceous, 1 m tall; flowers dull white. 29 July 1979. *J.A. Steyermark & R. Liesner 119027* (Holotype, MO). PARATYPE: VENEZUELA: Tachira: Vicinity of Las Minas, north of La Laguna, 16 km SE of Santa Ana, Lat.  $7^{\circ}36'N$ , Long.  $72^{\circ}13'W$ . Primary wet forest, sandy soil. alt. 1150-1250 m. Herbaceous, 0.8-1.0 m tall; flowers lavender; leaves rugose both sides, pale green above, gray green below. 28 July 1979. *J.A. Steyermark & R. Liesner 118902* (MO).

*Bartlettina liesneri* is named for the second collector of the two specimens. Ronald Liesner, of the Missouri Botanical Garden. The species is distinct from all others in the genus by the hairs on the backs of the style branches. Closest relationship is probably with *B. perezioides* of adjacent Colombia, but latter lacks the stylar hairs and has densely setiferous ribs on the achenes.

The two specimens of the new species have a superficially different appearance. The type is more branched with small non-cordate leaves, the only larger leaf with a slightly cordate base being in the packet. The paratype has a single more elongate branch with larger cordate leaves. Both specimens have leaves with mucronate-dentate margins and have the hairs on the backs of the lower part of the style branches.

BARTLETTINA CLEEFII R.M.King & H.Robinson, sp. nov.

Plantae volubiles lignosae mediocriter ramosae. Caules fulvescentes teretes striati dense puberuli. Folia opposita, petiolis 1.3-3.2 cm longis; laminae ovatae 5-9 cm longae et 3.5-6.0 cm latae base cordatae margine crenato-serratae apice breviter leniter acuminatae supra dense pilosulae subtus perdense atro-glandulo-punctatae plerumque in nervis et nervulis dense puberulae vel subtomentellae ad basem distincte trinervatae. Inflorescentiae dense pyramidaliter paniculatae in ramis corymbosae, ramis ultimis 1-3 mm longis dense puberulis. Capitula campanulata ca. 8 mm altae ca. 4-5 mm latae; squamae involucri ca. 20 subimbricatae inaequilongae oblongo-ovatae vel lanceo-

latae 2-5 mm longae et ad 1.4 mm latae apice breviter acutae margine puberulo-fimbriatae extus exteriores dense puberulae interiores sparse puberulae vel subglabrae leniter ca. 4-costatae; receptacula leniter convexa glabra. Flores ca. 25 in capitulo; corollae purpureae anguste infundibulares 4.5 mm longae extus glabrae, tubis 1.8 mm longis; faucibus ca. 2 mm longis, lobis ovatis 0.6 mm longis et 0.4 mm latis; filamenta in parte superiore 0.3-0.4 mm longa, cellulis in parietibus minute multo noduliferis; thecae ca. 1.5 mm longae; appendices antherarum ovatae ca. 0.35 mm longae et 0.25 mm latae; rami stylorum leniter mamillosi. Achaenia submatura ca. 2 mm longa superne et in costis setulifera; carpodia ca. 0.2 mm longa et 0.35 mm lata; setae pappi ca. 40 plerumque 3.5-4.0 mm longae apice tenuiores anguste acutae. Grana pollinis in diametro 23-25  $\mu$ m.

TYPE: COLOMBIA: Magdalena: Sierra Nevada de Santa Marta. Alto Buritaca. alt. 2.880 m. Enredadera bejucosa. Capitulos morados. 13-Agosto-1977. *O. Rangel & A.M. Cleef* 925 (Holotype, U).

The new species has a denser inflorescence and basally trinervate leaf blades unlike the previous species and more like *B. tenorae* (Aristeg.) K. & R. of Venezuela. The latter species differs by the longer narrowly acuminate leaves, the more pilosulous and less glandular-punctate lower leaf surface, the less unequal involucre bracts, the more conical and minutely hirtellous receptacle, the 80-100 flowers in the head, and the less tenuous tips of the pappus setae.

#### Literature Cited

- King, R. M. and H. Robinson 1975. Studies in the Eupatorieae (Asteraceae). CXXXIX. A new genus, *Aristeguietia*. *Phytologia* 30 (3): 217-220.



*Bartlettina liesneri* R. M. King & H. Robinson, with enlargement of head, Holotype, Missouri Botanical Garden. Photos by Victor E. Krantz, Staff Photographer, National Museum of Natural History.



*Bartlettina cleefii* R. M. King & H. Robinson, with enlargement of heads, Holotype, Botanical Museum and Herbarium, Utrecht.